

AMENDMENTS TO THE CLAIMS

The listing of claims replaces all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Previously presented) A current coil arrangement in an electricity meter, comprising:

a first current coil having two current blades and a middle portion extending therebetween, the two current blades configured to be received by a utility meter socket device, the middle portion and the current blades being integrally formed of a conductive material, the first current coil being asymmetrical about the midpoint between the two current blades, the first current coil disposed at least partially within the electricity meter; and

a second current coil disposed at least partially within the electricity meter, the second current coil constructed substantially identical in shape to the first current coil such that the second current coil is interchangeable with the first current coil.

2. (Original) The current coil arrangement of claim 1, wherein the middle portions of the first current coil and the second current coil pass in a current sensing relationship to a first current transformer.

3. (Original) The current coil arrangement of claim 2, the middle portions of the first current coil and the second current coil pass through a void defined in the current transformer.

4. (Original) The current coil arrangement of claim 1 wherein the direction of insertion of the current blade into the utility meter socket defines an axial direction, the axial direction further defining a radial direction and wherein the first current coil further comprises:

a first section including a first current blade, the first section having a length extending in the axial direction;

a second section having a length extending at least in a first radial direction from the first section;

a third section having a length extending in the axial direction from the second section;

a fourth section having a length extending at least in a second radial direction from the third section; and

a fifth section including a second current blade, the fifth section having a length extending in the axial direction from the fourth section.

5. (Original) The current coil arrangement of claim 4, wherein the first section extends to a first height that exceeds a second height, the fifth section extending to the second height.

6. (Original) The current coil arrangement of claim 5, wherein the third section has a third height, and wherein the first height is approximately equal to the sum of the second height and the third height.
7. (Original) The current coil arrangement of claim 4, wherein the lengths of the second and fourth section extend in a primarily non-axial direction.
8. (Original) The current coil arrangement of claim 4, wherein the lengths of the second and fourth section extend in different radial directions with respect to the third section.
9. (Original) The current coil arrangement of claim 4, wherein the first current coil is formed of a flat length of metal.
10. (Original) The current coil arrangement of claim 1, wherein the first current coil is formed of a flat length of metal.
11. (Original) The current coil arrangement of claim 10, wherein the first current coil has a length dimension, width dimension and thickness dimension, the first current coil having a plurality of bends about the width dimension.

12. ~~(Cancelled) A current coil including a middle portion and two current blades integrally formed, the two current blades configured to be received by a utility meter socket device, the current coil comprising:~~

~~a first section including a first current blade, the first section having a length extending in the axial direction;~~

~~a second section including a substantially straight portion having a length extending at least in a first radial direction from the first section;~~

~~a third section having a length extending in the axial direction from the second section;~~

~~a fourth section including a substantially straight portion having a length extending at least in a second radial direction from the third section, wherein the second radial direction is at a substantially different angular direction from the axial direction than the first radial direction; and~~

~~a fifth section including a second current blade, the fifth section having a length extending in the axial direction from the fourth section.~~

13. (Cancelled) ~~The current coil arrangement of claim 12, wherein the first section extends to a first height that exceeds a second height, the fifth section extending to the second height.~~

14. (Cancelled) ~~The current coil arrangement of claim 13, wherein the third section has a third height, and wherein the first height is approximately equal to the sum of the second height and the third height.~~

15. (Cancelled) ~~The current coil arrangement of claim 12, wherein the lengths of the second and fourth section extend in a primarily non-axial direction.~~

16. (Cancelled) ~~The current coil arrangement of claim 12, wherein the lengths of the second and fourth section extend in different radial directions with respect to the third section.~~

17. (Cancelled) ~~The current coil arrangement of claim 12, wherein the first current coil is formed of a flat length of metal.~~

18. (Cancelled) ~~A current coil arrangement in an electricity meter, comprising:
—— a current coil including an exposed conductive portion disposed between two meter blades;
—— a measurement contact element, the measurement contact element including a blade contact portion and circuit board contact portion, the circuit board contact portion configured to electrically connect to a circuit board connection, the blade contact portion including a flexible member biased toward and disposed against the exposed conductive portion.~~

19. (Cancelled) ~~The current coil arrangement of claim 18, wherein the blade contact portion includes a plate member having an opening, the exposed conductive portion of~~

~~the current coil passing through the opening, and wherein the flexible member extends from the plate member into the opening and against the exposed conductive portion.~~

20. (Cancelled) ~~The current coil arrangement of claim 18, wherein the circuit board contact portion includes a spring terminal.~~

21 (New) A current coil arrangement in an electricity meter, comprising:

a first current coil having two current blades and a middle portion extending therebetween, the two current blades configured to be received by a utility meter socket device, the middle portion and the current blades being integrally formed of a conductive material, the first current coil being asymmetrical about the midpoint between the two current blades, the first current coil disposed at least partially within the electricity meter; and

a second current coil disposed at least partially within the electricity meter, the second current coil constructed substantially identical in shape to the first current coil.

22. (New) The current coil arrangement of claim 21, further comprising a measurement contact element in contact with the first current coil, the measurement contact element including a blade contact portion and a circuit board contact portion, the circuit board contact portion configured to electrically connect to a circuit board connection, the blade contact portion including a flexible member biased toward and disposed against the middle portion of the first current coil.

23. (New) The current coil arrangement of claim 22, wherein the blade contact portion includes a plate member having an opening, the middle portion of the current coil passing through the opening, and wherein the flexible member extends from the plate member into the opening and against the middle portion of the first current coil.
24. (New) The current coil arrangement of claim 22, wherein the circuit board contact portion includes a spring terminal.
25. (New) The current coil arrangement of claim 1 wherein the middle portion of the first current coil comprises an exposed conductive portion.
26. (New) The current coil arrangement of claim 25 further comprising a measurement contact element in contact with the first current coil, the measurement contact element including a blade contact portion and a circuit board contact portion, the circuit board contact portion configured to electrically connect to a circuit board connection, the blade contact portion including a flexible member biased toward and disposed against the exposed conductive portion of the first current coil.
27. (New) The current coil arrangement of claim 26, wherein the blade contact portion includes a plate member having an opening, the middle portion of the current coil passing through the opening, and wherein the flexible member extends from the plate member into the opening and against the exposed conductive portion of the first current coil.

28. (New) The current coil arrangement of claim 26, wherein the circuit board contact portion includes a spring terminal.